



dPTO/SB/08a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 Of 5

**Complete If Known**

Application Number	10768,260
Filing Date	1/30/2004
First Named Inventor	Balaban, David J.
Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	3068.5B

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (If known)			
	1	US- 4,683,202	07-28-1987	Mullis	
	2	US- 5,143,854	09-01-1992	Pirung et al.	
	3	US- 5,206,137	04-27-1993	Ip et al.	
	4	US- 5,364,759	11-15-1994	Caskey et al.	
	5	US- 5,371,671	12-06-1994	Andersen et al.	
	6	US- 5,445,934	08-29-1995	Fodor et al.	
	7	US- 5,492,806	02-20-1996	Drmanac et al.	
	8	US- 5,524,070	06-04-1996	Shin et al.	
	9	US- 5,525,464	06-11-1996	Drmanac et al.	
	10	US- 5,571,639	11-05-1996	Hubbell et al.	
	11	US- 5,571,639	11-05-1996	Hubbell et al.	
	12	US- 5,593,839	01-14-1997	Hubbell et al.	
	13	US- 5,593,839	01-14-1997	Hubbell et al.	
	14	US- 5,632,282	05-27-1997	Hay et al.	
	15	US- 5,642,936	07-01-1997	Evans	
	16	US- 5,667,972	09-19-1997	Drmanac et al.	
	17	US- 5,695,940	12-19-1997	Drmanac et al.	
	18	US- 5,700,637	12-23-1997	Southern	
	19	US- 5,707,806	01-13-1998	Shuber	
	20	US- 5,777,888	07-07-1998	Rine et al.	
	21	US- 5,800,992	09-01-1998	Foder et al.	
	22	US- 5,813,002	09-22-1998	Agrawal et al.	
	23	US- 5,819,282	10-06-1998	Hooper et al.	
	24	US- 5,832,182	11-03-1998	Zhang et al.	
	25	US- 5,843,669	12-01-1998	Kaiser et al.	
	26	US- 5,843,767	12-01-1998	Beattie	
	27	US- 5,856,101	01-05-1999	Hubbell et al.	
	28	US- 5,871,697	02-19-1999	Rothberg et al.	
	29	US- 5,871,928	02-16-1999	Foder et al.	
	30	US- 5,899,992	05-04-1999	Iyer et al.	
	31	US- 5,925,525	07-20-1999	Fodor et al.	
	32	US- 5,930,803	07-27-1999	Becher et al.	
	33	US- 5,933,818	08-03-1999	Kasravi et al.	
	34	US- 5,933,821	08-03-1999	Matsumoto et al.	
	36	US- 5,960,435	09-28-1999	Rathmann et al.	
	36	US- 5,961,923	10-05-1999	Nova et al.	

Examiner  
SignatureDate  
Considered

2/10/06

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Substitute for form 1449A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	0768,260
		Filing Date	1/30/2004
		First Named Inventor	Balaban, David J.
		Art Unit	Unknown
		Examiner Name	Unknown
		Attorney Docket Number	3068.5B
Sheet	2	Of	5

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
<i>W</i>	37	US- 5,974,164	10-26-1999	Chee	
	38	US- 5,977,890	11-02-1999	Rigoutsos et al.	
	39	US- 5,991,766	11-23-1999	Sadiq et al.	
	40	US- 5,999,192	12-07-1999	Selridge et al.	
	41	US- 6,032,151	02-29-2000	Arnold et al.	
	42	US- 6,040,138	03-21-2000	Lockhard et al.	
	43	US- 6,046,002	04-04-2000	Davis et al.	
	44	US- 6,060,240	05-09-2000	Kamb et al.	
	45	US- 6,140,054	10-31-2000	Wittwer et al.	
	46	US- 6,185,561	02-06-2001	Balaban et al.	
	47	US- 6,188,783	02-13-2001	Choo bin	
	48	US- 6,472,520	10-29-2002	Fisher	
	49	US- 6,573,039	06-03-2003	Dunlay et al.	
	50	US- 6,600,996	07-29-2003	Webster et al.	
<i>W</i>	51	US- 6,618,852	09-09-2003	Van Eikeren et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
w	1	EP - WO 0 235 726	05-10-1989			
	2	EP - WO 0 307 476	03-22-1989			
	3	EP - WO 0 392 546	10-17-1990			
	4	EP - WO 0 717 113	07-17-1996			
	5	EP - WO 0 848 067	06-17-1998			
	6	WO - WO 89-11548	11-30-1989			
	7	WO - WO 90-11548	11-30-1989			
	8	WO - WO 90-15070	12-13-1990			
	9	WO - WO 92-10092	06-25-1992			
	10	WO - WO 92-10588	06-25-1992			
	11	WO - WO 93-22456	11-11-1993			
	12	WO - WO 95-11995	05-04-1995			
	13	WO - WO 96-23078	08-01-1996			
	14	WO - WO 97-10365	03-20-1997			
w	15	WO - WO 97-17317	05-15-1997			

Examiner Signature	<i>Hunsby</i>	Date Considered	2/10/06
--------------------	---------------	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				Application Number	0768,260
				Filing Date	1/30/2004
				First Named Inventor	Balaban, David J.
				Art Unit	Unknown
				Examiner Name	Unknown
				Attorney Docket Number	3068.5B
Sheet	3	Of	5		

FOREIGN PATENT DOCUMENTS						
Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>4</sup>
		Country Code <sup>2</sup> - Number <sup>3</sup> - Kind Code <sup>5</sup> (if known)				
<i>W</i>	16	WO - WO 97-19410	05-29-1997			
<i>W</i>	17	WO - WO 97-27317	07-31-1997			
<i>W</i>	18	WO - WO 97-29212	08-14-1997			

Examiner Signature	<i>[Signature]</i>	Date Considered	2/10/06
-----------------------	--------------------	--------------------	---------

<sup>1</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>2</sup> Applicant's unique citation designation number (optional). <sup>3</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>4</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>5</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>6</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>7</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B-PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	0768,260
		Filing Date	1/30/2004
		First Named Inventor	Balaban, David J.
		Art Unit	Unknown
		Examiner Name	Unknown
		Attorney Docket Number	3068.5B
Sheet	4	of	5

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and-or country where published.	T <sup>2</sup>
<i>[initials]</i>	1	ADAMS et al., "Complementary DNA Sequencing: Expressed Sequence Tags and Human Genome Project", <u>Science</u> , Vol. 252, No. 5013, 1995, pps. 1651-1656.	
	2	ALLEE, "Data management for Automated Drug Discovery Laboratories", Laboratory Robotics and Automation, Aug. 21, 1996, pp. 307-310.	
	3	DATE, "Introduction to Database Systems—Chapter 4, An overview of DB2", 1990, pp. 111-116.	
	4	DRMANAC, "Sequencing of Megabase Plus DNA by Hybridization: Theory of the Method", <u>Genomics</u> , 4:114-128 (1989).	
	5	FICKETT et al., "Development of a Database for Nucleotide Sequences", <u>Mathematical Methods for DNA Sequences</u> , 1989, pps. 2-34.	
	6	FRENKEL, "The Human Genome Project and Informatics: A Monumental Scientific Adventure", <u>Communications of the ACM</u> , pp. 40-52.	
	7	GIBBS et al., "Detection of single DNA base differences by competitive oligonucleotide priming", <u>Nucleic Acid Res.</u> , Vol. 17, No. 7, 1989, pps. 2437-2448.	
	8	GUATELLI et al., "Isothermal, In Vitro Amplification of Nucleic Acids by a Multienzyme Reaction Modeled After Retroviral Replication", <u>Proc. Natl. Acad. Sci USA</u> , 85(5):1874-1878 (1990).	
	9	GUSELLA, "DNA Polymorphism and Human Disease", <u>Annu. Rev. Biochem.</u> , 55:831-854 (1986).	
	10	HARA et al., "Subtractive cDNA cloning using oligo(dT)30-latex and PCR: isolation of cDNA clones specific to undifferentiated human embryonal carcinoma cells", <u>Nucleic Acid Res.</u> , Vol. 19, No. 25, 1991, pps. 7097-7104.	
	11	IntelliGenetics Suite <sup>TM</sup> , Release 5.4, Advanced Training Manual, January 1993, pps. 1-6, 1-19, 2-9 and 2-14.	
<i>[initials]</i>	12	KERLAVAGE, Anthony R., et al., "Data management and Analysis for High-Throughput DNA Sequencing Projects", <u>IEEE Engineering in Medicine and Biology</u> , Nov.-Dec. 1995, pp. 710-717.	

Examiner Signature	<i>[Signature]</i>	Date Considered	2/10/06
--------------------	--------------------	-----------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and-or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B-PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

5

of

5

**Complete if Known**

Application Number 0768,260

Filing Date 1-30-2004



First Named Inventor Balaban, David J.

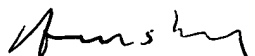
Art Unit Unknown

Examiner Name Unknown

Attorney Docket Number 3068.5B

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and-or country where published.	T <sup>2</sup>
	13	KHAN et al., "Single pass sequencing and physical and genetic mapping of human brain cDNAs", <u>Nature Genetics</u> , Vol. 2, November 1992, pps. 180-185.	
	14	KWOH et al., "Transcription-Based Amplification System and Detection of Amplified human immunodeficiency Virus Type 1 with a Bead-Based Sandwich Hybridization Format", <u>Proc. Natl. Acad. Sci. USA</u> , Vol. 86, No. 4, 1989, pps. 1173-1177.	
	15	LANDEGREN et al., "A Ligase-Mediated Gene Detection Technique", <u>Science</u> , Vol. 241, No. 4869, 1988, pps. 1077-1080.	
	16	MATSUBARA et al., "Identification of New Genes by Systematic Analysis of cDNAs and Database Construction", <u>Curr. Opin. Biotechnol.</u> , Vol. 4, No. 6, 1993, pps. 672-677.	
	17	MATTILA et al., "Fidelity of DNA Synthesis by the Thermococcus Litoralis DNS Polymerase—An Extremely Heat Stable Enzyme with Proofreading Activity", <u>Nucleic Acids Res.</u> , Vol. 9, No. 18, 1991, pps. 4987-4973.	
	18	OKUBO et al., "Large Scale cDNA Sequencing for Analysis of Quantitative and Qualitative Aspects of Gene Expression", <u>Nature Genetics</u> , Vol. 2, 1993, pps. 173-179.	
	19	ORITA et al., "Detection of polymorphisms of human DNA by gel electrophoresis as single-strand conformation polymorphisms", <u>Proc. Natl. Acad. Sci. USA</u> , Vol. 86, April 1989, pps. 2766-2770.	
	20	PR Newswire, "Gene Logic to Use Affymetrix GeneChip Array to Build Gene Expression Database Products", January 11, 1999.	
	21	SAIKI et al., "Analysis of Enzymatically Amplified Beta-Globin and HLA-DQ Alpha DNA with Allele-Specific Oligonucleotide Probes", <u>Nature</u> , Vol. 324, No. 6093, 1986, pps. 163-166.	
	22	WU et al., "The Ligation Amplification Reaction (LAR)—Amplification of Specific DNA Sequences Using Sequential Rounds of Template-Dependent Ligation", <u>Genomics</u> , Vol. 4, No. 4, 1989, pps. 560-569.	
	23	ZHAO et al., "High-density cDNA filter analysis: a novel approach for large-scale, quantitative analysis of gene expression", <u>Gene</u> , Vol. 156, 1995, pps. 207-213.	

Examiner  
SignatureDate  
Considered

2/10/06

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and-or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.